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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,529	12/13/2000	Gerald W. Mills	723.040US1	8869

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EXAMINER

TUGBANG, ANTHONY D

ART UNIT PAPER NUMBER

3729

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,529

Applicant(s)

MILLS, GERALD W.

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 11-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The applicant's amendment filed 1/5/04 (Paper No. 8) has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Claims 11-26 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.
4. This application contains claims directed to the following patentably distinct species of the claimed invention.

Species A, drawn to rolling a mandrel with trace conductive material in a single revolution, Claims 9-10;

Species B, drawn to rolling a mandrel with trace conductive material in more than one revolution, Claims 1-8 and 31;

Species C, drawn to a mandrel that includes coaxial conductors, Claims 27-29;

Species D, drawn to forming disk shaped windings, Claim 30 and;

Species E, drawn to forming cone shaped windings, Claim 32.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there are no generic claims.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

5. Pending Claims 1-8 and newly submitted Claims 27-32 are directed to an invention that is independent or distinct from the invention originally claimed for the reasons set forth above.

Since applicant has received an action on the merits for the originally presented invention (Species A), this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, Claims 1-8 and 27-32 have been withdrawn from

consideration as being directed to a non-elected invention/species. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

6. **Again**, the title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A Method of Manufacturing a Microcoil Construction.

Claim Rejections - 35 USC § 102

7. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Weatherly 4,639,708.

Weatherly discloses a method of forming a microcoil comprising: attaching a trace of conductive material (either one of coils 10, 11) to a film of insulating material (flexible sheet 12); rolling the film around a mandrel (core 22) such that the trace of conductive material is circumferentially wrapped around a longitudinal axis (centerline of the core 22).

8. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by McGaffigan 5,526,561.

McGaffigan discloses a method of forming a microcoil comprising: attaching a trace of conductive material (conductive braids 96) to a film of insulating material (rubber sheet 94); rolling the film around a mandrel 92 such that the trace of conductive material is circumferentially wrapped around a longitudinal axis (see sequence of Figs. 12-13).

Claim Rejections - 35 USC § 103

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weatherly in view of McGaffigan.

Weatherly teaches the claimed manufacturing method as previously discussed.

Weatherly does not mention affixing a solderable attaching trace to the film and soldering the attaching trace to the mandrel.

McGaffigan, in an alternative embodiment, shows affixing a soldering attaching trace at the ends of the conductive traces to solder the ends of the traces on the mandrel (see col. 3, lines 62+) for establishing an electrical connection of the conductive traces.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Weatherly, by soldering to attach traces, as taught by McGaffigan, to positively establish an electrical connection of the conductive traces.

Response to Arguments

10. Applicant's arguments filed 1/5/04 (Paper No. 8) have been fully considered but they are not persuasive.

In regards to the merits of the prior art above, the applicant asserts that the prior art does not teach "attaching the film to a mandrel" (line 4 of Claim 9).

The examiner most respectfully disagrees for the following reasons.

In Weatherly, the claimed "trace of conductive material" is read as the material of either one of coils 10, 11, which is clearly attached to a film of flexible insulating material (sheet 12). The claimed "mandrel" is read as core element 22 and the film 12 is attached to the core element

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22 by being wrapped around the core element, i.e. mandrel (see col. 2, lines 3+) with the conductive material. The term of “attaching” (line 4 of Claim 9) is a very broad limitation and does not require how the film is attached to the mandrel. The very fact that Weatherly’s film 12 is placed on, and in direct contact with, the core 22, satisfies the limitations of “attaching the film to a mandrel”.

In McGaffigan, the feature of “attaching the film to a mandrel” was relied upon in two different embodiments. The first is shown in Figure 10 where the insulating film is read as rubber sheet 94 and the mandrel is read as D-shaped mandrel 92. The fact that the mandrel 92 is clearly shown to be **on** the insulating film 94 means that the film is attached to the mandrel. The second is shown in alternative embodiment (Fig. 13) where the claimed “mandrel” can be read alternatively as insulating tape 93 in which this insulating tape is bent, i.e. rolled, with the film 94 and conductive material such that the film and conductive material is wrapped with the tape (final structure shown in Fig. 13 and discussed at col. 7, lines 23-30). Moreover, McGaffigan also teaches that the film is attached to the mandrel by soldering the conductive traces (see col. 3, lines 62+). Since the mandrel (insulating tape 93) is part of the final structure (as shown in Figs. 1 and 13), any soldering of traces that occurs (at col. 3, lines 62+) can be said to attach the trace to the mandrel (tape 93) by soldering.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the mandrel comprises a semi-rigid coaxial line and that the rolling occurs in more than one revolution) are not recited in rejected Claims 9-10. Although the claims are interpreted in light

of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

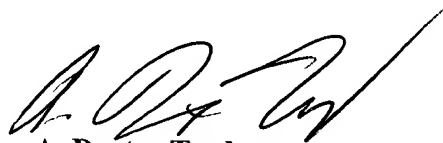
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599. The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

March 22, 2004